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SURVEY OF RESERVES, WEAKNESSES OF HUNGARY'S TEXTILE INDUSTRY

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Implementation of this task will require intensive exploitation of latest production techniques, increased productivity of manpower and of installations, and utilization of the exploitable reserves of the textile enterprises.

Present conditions in the chief branches of the textile industry are described below.

COTTON INDUSTRY

Spinning

The 1951 first-quarter plan in the cotton-spinning factories was fulfilled 98 percent. This slight lag is explained by the failure of cotton-spinning factories to observe the equipment maintenance schedule, the technical improvement of installations, and the flow of production prescribed by the Five-Year Plan, and to remedy existing shortcomings in production planning.

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A review of the productive capabilities of individual spinning factories reveals the following general shortcomings and hidden reserves:

1. The factories of the Kobanya Fono (spinnery) and the Szeged Kombinat (combine) equal the Soviet level of speed of machinery. Factories which approach the Soviet machine-speed norms are the Finompamutfono (fine cotton spinnery) and the Gyor Fono, which are 5-7 percent under the USSR level. The following factories are farthest behind the Soviet speed norms: Uipest Cernag-yar (thread factory), Lorinc Fono, Keltex, Pamuttextilmuvek (cotton textile works), Altalanos Fono, Buda Pamutfono (cotton spinnery), and the Papa Textilmuvek (textile works). Machine speed in these factories is 11.5-37 percent behind Soviet norms. In none of these factories does the productivity of installations equal Soviet norms. Productivity of the high-speed Kobanya Fono and the Szeged Kombinat is 5.2-10.5 percent under Soviet norms, and other factories are 22-53 percent behind. In addition to the general low machine speed, the low level of productivity is explained by failure to maintain technological discipline, the unsatisfactory mechanical condition of installations, and unsatisfactory planning of work.

2. There is still no satisfactory provision for planned preliminary maintenance, especially in supplying important machine parts, materials, and necessities. The quality of machine repair, and the acceptance of poorly repaired machines are unsatisfactory. Poorly repaired machines operate faultily until the next scheduled repair. Major repairs are performed every 3 years, and scheduled preliminary maintenance, at 4-month intervals. Specified settings of the machines are not observed in daily operation, in major repairs, and in scheduled preliminary maintenance.

Cotton Industry Spinning
 3. In many factories, machine stoppage far exceeds provisions of the plan. Most of it is due to mechanical faults, resulting from lack of discipline in machine personnel and lack of work analysis in the factory and shops. Most work stoppage is due to a shortage of preliminary thread. This is a result of frequent stoppage of a large number of spindles of the preliminary spinning machine, due to poor planning of the work of the women workers who tend the spindles. Disassembling time is 2-2½ times the Soviet norm.

4. The following conditions have been noted in most factories in connection with shortcomings in the flow of production:

a. Irregularities in semifinished products, such as spools of yarn produced by the single-speed beating machines, amount to as much as 3.0-3.5 percent, whereas the normal is 1.6-1.8 percent. Furthermore, in processing, the irregularity of the ribbon increases, since the automatic stopping apparatus on the ribbon aligner often does not work, and as the number of composers varies.

b. Considerable losses result from improper organization of the work of women workers tending the spindles; 4-5.5 minutes are allotted to one removing operation, or 2-2.5 times the Soviet norm. On 480-spindle ring-spinning machines which are restarted after the removing operation, the number of stopped spindles reaches 110, or 23 percent. It takes much of the women's time to restart these spindles.

c. The proper maintenance schedule for carding machines is not observed.

d. Machines are not cleaned, dusted, and oiled as prescribed.

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Considerable reserves for increasing the production of cotton spinneries are thus to be found in the following factors: (1) low speed of the machines; (2) failure to maintain installations in the proper mechanical condition, lack of conscientious repair of machines and acceptance of machines repaired unsatisfactorily; (3) failure to observe proper settings on machines; (4) machine stoppage in excess of plan (lack of preliminary thread, manpower shortage, etc.) (5) lack of proper technological discipline; and (6) improper planning of work and production.

Weaving

The plan for producing raw cotton cloth in the first quarter was fulfilled 10.3 percent.

Production reserves latent in the weaving mills are as follows:

1. Low speed of the looms. Machine speed in no Hungarian weaving mill equals Soviet norms. The Kelenfold Textilkombinat (textile combine), with 183 revolutions per minute on the 5/4 looms, or 8.5 percent under the Soviet speed level, is nearest to equaling the Soviet norm of 200 rpm. Machine speed in other factories is much lower: Kispest Textilgyar (textile factory) 16.9 percent below USSR norms, Magyar Pamutipar (cotton industry) and Kobanya Szovo (weaving mill) 18.5, Bekescsaba Pamutsozovo (cotton-weaving mill) 22.3, Hazai Pamutsozovo and Soroksar Textil 24, Sopron Pamutipar 23.5, Papa Textilmuvek 30.0, Alford Szovogyar (weaving factory) 31, and Gyor Textilmuvek 31.3 percent.
2. In loom-hour production, Hungarian mills show the following lag behind Soviet productivity levels: Kispest Textilgyar, Kelenfold Textilkombinat, and Magyar Pamutipar 17.3-18.7 percent. The greatest lag is in the following factories: Bekescsaba Pamutsozovo 23.5 percent, Kobanya Szovo 28.3, Soroksar Textil 28.9, Mezotur Szovo 28.4, Szombathely Pamutipar 29.5, Hazai Pamutsozovo 38, Pamuttextilmuvek 38.5, Sopron Pamutipar 38.5, Gyor Textilmuvek 39.5, Alfold Szovogyar 44.3, Papa Textilmuvek 46.5 percent. (See appended table for Soviet machine-speed norms.)
3. Maintenance of machines in the weaving mills is unsatisfactory because of the same conditions extant in the spinneries.
4. Loom settings and installations are not performed according to tables of specifications, and discrepancies appear in settings on different machines for the same material. Such is the case at the Magyar Pamutipar factory, where "Norma" fabric is produced.
5. Increase in production is also hindered by excessive machine stoppage. At the Pamuttextilmuvek, machine stoppage time is as much as 15 percent. Some of the stoppage is caused by a lack of thread, though the mill has its own spinnery. Such extensive stoppage is explained only by a lack of active leadership.
6. Shortcomings in the flow of production can be summarized as follows:
 - a. In winding the thread on spools, the chain-thread tension is insufficient and irregular. Cross-spindle winding of thread is unsatisfactory. Often, interfering layers and descending cones are formed on the cross spindles. In many places, drawing machines are not equipped with automatic stopping devices (Gyor Fonogyar). In many factories, there is no leader tube for the dyed material, chain cylinders are not measured off after dyeing, and the excess

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weight of dyeing shows too much variation. Chain cylinders are not installed in the looms properly, and the installation is not controlled by the shop head foremen. Considerable irregularities in production are caused by the low speed of the looms, improper condition of the strap spreader, and unsatisfactory functioning of the lamella apparatuses due to the dense installation of lamellae.

b. Unsatisfactory work of the preparing divisions results in frequent crossing of threads, which causes breakage.

c. The weavers' work is not properly planned: in the eight-machine system at the Magyar Pamutipar, a weaver produces a "34" strip of "Norma" on six machines, and a "13.5" vigogne strip of flannel on two machines.

d. The weavers' individual responsibility is poorly defined, and a machine group may be divided between the authority of two foremen.

To summarize, the following significant reserves exist in the production of weaving mills: low speed of looms; in individual factories, the improper working condition of looms, unsatisfactory repair, and acceptance of poorly repaired machines; failure to maintain technological discipline; machine stoppage in excess of plan; unsatisfactory planning of work and production.

Finishing

The finished products plan was fulfilled only 94.4 percent. This may be explained by the high level of machine stoppage and by poor planning of work.

The 8-hour production of the largest Hungarian finishing plants is as follows: Textilfestogyar (textile dyeing factory) 4,000-5,000 meters, or 93-117 pieces (one piece equals 42.7 meters), and the Goldberger plant, 4,000-5,500 meters. This is still much less than the Soviet productivity norm.

With the present capacity of drying installations, the production of the pressing machines could be increased to 8,000-9,000 meters per work shift. A serious effort will be required to eliminate the present high level of pressing machine stoppages.

It must be pointed out here that the production volume of Hungarian finishing plants is very small, a large variety of items is produced, the volume of production is not large, and factory installations are varied. Individual factories, such as the Textilfestogyar, also produce small quantities of wool cloth. These factories should be equipped with appropriate machinery. The capacity of bleaching shops, with few exceptions, could be expanded considerably through improved exploitation of the boilers, through the use of automatic material-packing equipment, and with the mechanization of manufacturing processes. The capacity of individual bleaching shops, such as the bleaching shops of the Goldberger and the Kistext plants, can be increased 40-50 percent without further modification.

The status of washing and drying installations is worse. Washing installations are antiquated and run down, and are used in connection with small-capacity drying apparatus. Drying drums in the Textilfestogyar and in the Kistext have 16-24 cylinders, whereas 32-cylinder dryers are needed. The capacity of these machines is considerably reduced by the run-down condition of the wringers, the Strang levelers (Textilfestogyar), the poor condition of the wringer rollers, and the worn-out condition of the rubber intakes.

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Other weaknesses of the drying-finishing factories are that they have little automatic equipment, and that they lack proper standardizing and control apparatus.

The machine speed, utilization of installations, and productivity in the linen, hemp, jute, wool, and silk industries offer the same production reserve possibilities as the cotton industry.

The particular shortcomings and reserves of the branches of these industries are as follows:

LINEN, HEMP, AND JUTE INDUSTRY

1. Unsatisfactory seed is used for planting oil flax, which lowers production and yields poor-quality fiber.
2. Diseased seed and oil flax are being harvested.
3. Seed flax is being threshed on machines designed for threshing grains. This damages the flax fiber, making it unsuitable for further processing at linen-processing plants. Cessation of improper cutting and threshing of flax will make possible an increase of 20-25 percent in flax-fiber production without increasing the acreage of the planting, and assuming the same harvest yield.
4. Operation standards have not been developed for preliminary processing machines in the linen, hemp, jute, and weaving factories.
5. Storing of raw material is poorly organized. Individuals responsible for guarding raw materials have not been named.
6. There is a lack of qualitative selection of flax fibers before soaking.
7. There is insufficient flax hay after soaking.
8. Very little clean fiber is yielded after passing through the turbines. The clean-fiber yield of Soviet preparing plants is 75 percent. The yield in Hungary is not more than 15-20 percent.
9. Short fibers are of weak quality.

WOOL INDUSTRY

Wool industry installations are outdated. The waste material cleaning machines and carding machines constitute a production bottleneck in the carding spinneries.

In comb spinneries, the combing facilities are of insufficient capacity to guarantee a satisfactory volume of combed cloth.

The weaving-preparing divisions have small capacity and are outdated.

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The number of air conditioning and humidity control installations is insufficient, and the existing small-capacity apparatus cannot maintain prescribed temperature and humidity levels.

No bundle tiers are used at all.

Automatization of production is behind schedule (automatization of chain thread rings, tappers, and looms). Three percent of the looms in the industry are automatic. Factories have not been separated into carding and combing factories.

Production quality control is unsatisfactory: there are no color retention inspections; spoilage specifications have not been prepared for thread, raw material, and finished products; the work of receivers has been improperly organized. The function of control office organizations is not to receive goods, but to control the quality.

Control of production technology is unsatisfactory: to speed up plan implementation, factory technology constantly is being simplified to the extent that entire series of operations are omitted, which is detrimental to the quality of the product. There are no chemical laboratories in the finishing factories. Production control is exercised by shop foremen, who frequently change shop techniques. Composition of the flow of production is improper. Individual operations are performed improperly (such as the washing operation in the Richard Richards Factory, ironing in the Baja factory, etc.). Technological procedure should be controlled through the chemical laboratory.

Development of technological norms by the ministry, which would permit putting an end to the secretiveness which prevails in the factories, is still lacking.

Ministry-approved cloth-inspection methods are lacking. Approved color retention standards are also lacking.

Since no personally responsible individuals are dealing with these problems, accident prevention in the factories is very much neglected.

Machine service norms are not studied sufficiently in the factories.

Many operations are performed differently in different factories: in some factories, an automatic press is attended by one worker, in others, by three workers. Production and norms should be regulated in accordance with technological and quality requirements. Operations cannot be omitted if the omission is detrimental to the quality of production.

THE STAKHANOVITE MOVEMENT AND SHARING OF STAKHANOVITE METHODS

It is unfortunate that the Stakhanovite movement, which could further industry at a rapid pace by increasing the productivity of work and of installations and by improving the quality and volume of production, has not been developed sufficiently. To the questions of directors, chief engineers, and other technical workers making inspection tours, factory workers reply that the Stakhanovite movement is making good progress. It is apparent from factory inspections, however, that the opposite is true.

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The director and chief engineer of the Lorinc Fonogyar reported that they had instituted the Kovalev method of manufacturing technique. It was established, however, that the head foreman and the women workers were using an entirely incorrect method of joining a broken strand to the lead thread. Instead of twisting broken strands together, the strands were merely laid upon each other, which caused irregularities in the thread.

At the same factory, it was reported that a special brigade had been formed for the removing operation at the ring-spinning machines. It was discovered, however, that the removing operation was performed by women workers from adjacent machines, who converge on the machine indicated when the group leader blows a whistle. This takes 250 percent of the time consumed on the same job in Soviet factories.

Engineer Kovalev studied and wrote down shop methods of Stakhanovites in the factory, and instructed all the workers of the shop in Stakhanovite methods. Only then did he introduce new experimental methods in a portion of the shop. The experiment was a success, and the new work method was introduced in the entire factory, with the result that the factory won the Stakhanovite title.

Although instruction of workers has been the subject of discussion at many conferences, and textile industry newspapers have run many articles on the subject, technical instruction of workers is still unsatisfactory.

An outstanding Stakhanovite of the textile industry is Mrs Hugo Legradi, weaving mill worker of the Magyar Pamutipar factory, who tends 16 machines and is one of the initiators of the multimachine-tending method. Her average production is 175-180 percent. In addition to the average weaver's pay at the factory, 725 forints, she receives 1,250 forints in Stakhanovite's bonus.

Another outstanding Stakhanovite is Mrs Istvan Pecanek, a weaving mill worker of the Csepel Posztogyar, and one of the initiators of the multimachine-tending method. She ranks second in the country [among Stakhanovites of her class].

It is absolutely necessary that shop foremen study and write down Stakhanovite methods, so that they may be learned by shop personnel, model shop details may be organized, and the methods may be instituted in the entire factory.

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USSR Speed Norms for Weaving Machines

Width of Loom in the Reed			Lower Percussion Mechanical Looms		Upper Percussion Mechanical Looms	Mechanical Jacquard Machines	Automatic Looms	Domestically Manufactured Automatic Looms	
Quarters	English Inches	Centimeters	Swinging Reed	Percussion				"N" Type Machines	New AT825 M and ATK 100 Types
4/4	32	81	225-235	220-225	220	190-200	185-190	190-195	200
5/4	42	106.7	210-220	200-210	200	180-190	175	175-180	200
6/4	48	122.0	190-200	180-190	190	--	--	--	--
7/4	56	142.2	180-190	170-180	175	--	--	--	--
8/4	64	162.5	160	170	155	--	--	156	--
9/4	72	183.0	150	155	145	--	--	144	150

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